

Bellwork : 9/19/12

① Solve for F

$$\left(\frac{9}{5}\right)C = \cancel{\left(\frac{9}{5}\right)}(F - 32)$$

$$\begin{array}{r} \frac{9}{5}C = F - 32 \\ + 32 \qquad + 32 \\ \hline \frac{9}{5}C + 32 = F \end{array}$$

$$\frac{9}{5}C + 32 = F$$

② Solve for x

$$3(2x - 1) + 2(3x + 4) = 1/x$$

$$6x - 3 + 6x + 8 = 1/x$$

$$\begin{array}{r} 12x + 5 = 1/x \\ - 12x \qquad - 12x \\ \hline \end{array}$$

$$\begin{array}{r} 5 = 1/x \\ \frac{5}{-1} = \frac{-x}{-1} \end{array}$$

$$x = -5$$

$$\frac{a^{20}b^7c^9}{a^{18}b^1c^{13}} = \frac{a^2b^6}{c^4}$$

$$\begin{aligned}
 & \left[\frac{(a^3 b^3 c^{-6})}{(a^8 b^6 c)} \right]^{-2} \left(\frac{a^3}{c^6} \right)^2 \\
 & \left(\frac{a^{-6} b^{-6} c^{12}}{a^{-16} b^{-12} c^{-2}} \right) \left(\frac{a^6}{c^{12}} \right) \\
 & \frac{b^{-6} c^{12}}{a^{-16} b^{-12} c^{10}} = a^{16} b^6 c^2
 \end{aligned}$$

$$\left(\frac{5r^2s^{-2}}{s^{-3}} \right)^{-1} = \frac{5^{-1}r^{-2}s^2}{s^3} =$$

$$\frac{1}{5r^2s}$$

#4)
$$\frac{\text{Car}^{\#1}}{3(x)} + \frac{\text{Car}^{\#2}}{x+20} = 450$$

$$3(2x+20) = 450$$

$$6x + 60 = 450$$

$$6x = 390$$

$$x = 65$$

car#1 - 65mph

car#2 - 85mph

$$60 = \text{side \#1} + \text{side \#2} + \text{side \#3}$$
$$60 = 3x + 4x + 5x$$

$$12x = 60$$

$$x = 5$$

$$\text{side \#1} = 15 \text{ in}$$

$$\text{side \#2} = 20 \text{ in}$$

$$\text{side \#3} = 25 \text{ in}$$

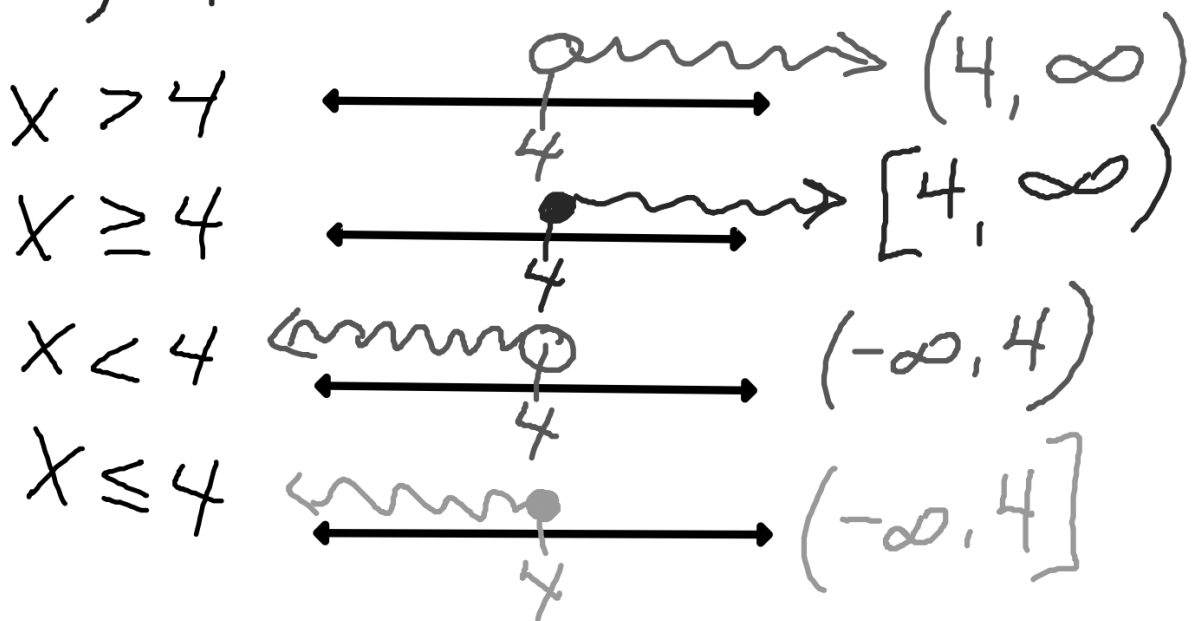
$$60 \text{ in}$$

Graph on a number line

$[]$ - the number is included

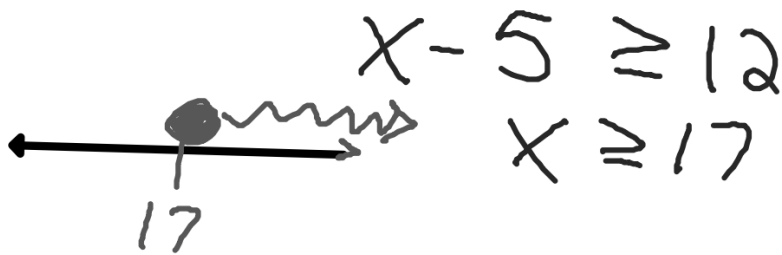
$()$ - the is not included

Interval Notation



Translate to the inequality

5 fewer than a number
is at least 12.



IN: $[17, \infty)$

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Translate to the inequality
The quotient of a number
and 3 is no more than
15.

Solve and graph inequality

$$-3(2x-5) + 1 \geq 4 \quad \longleftrightarrow$$

interval
notation

Solve and graph inequality

$$-2(x+9) + 5 \geq 3 \longleftrightarrow$$

interval
notation

A movie rental program offers two subscription plans. You can pay \$36 a month & rent as many movies as you like or you can pay \$15 a month plus \$1.50 per movie. How many movies must you rent in a month for the first plan to cost less than the second plan?

Always, Sometimes, Never

$$-2(3x+1) > -6x+7$$

Always, Sometimes, Never

$$5(2x-3)-7x \leq 3x+8$$

Always, Sometimes, Never

$$4(2x-3) < 8(x+1)$$

Homework: 9/19/12

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